

APRIL/MAY 2024

**BACS32/FACS32/CACS32 — STATISTICAL
METHODS AND THEIR APPLICATIONS I**

Time : Three hours

Maximum : 75 marks

PART A — ($10 \times 2 = 20$ marks)

Answer ALL questions.

1. What do you mean by a Histogram?
2. What is tabulation?
3. State any two merits of median.
4. What is a measure of central tendency?
5. Define relative measure.
6. What are quartiles?
7. Give any two measures of skewness.
8. Define moments. What are its uses?
9. Define positive and negative correlations.
10. What is regression?

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain the essential characteristics of a good table.

Or

- (b) Explain the method of drawing Lorenz curve. What are its uses?

12. (a) Discuss the characteristics of a good average.

Or

- (b) Calculate the Arithmetic mean for the following data

Data	Age in years	8	10	12	15	18
	Number of workers	5	7	12	6	10

13. (a) What is dispersion? Explain its importance in statistics.

Or

- (b) Define standard deviation and discuss its importance.

14. (a) State Pearson's formula and Bowley's formula for measuring skewness.

Or

- (b) Explain the measure of skewness based on moments.

15. (a) What is meant by correlation? How it is measured?

Or

- (b) Explain the Karl Pearson's coefficient of correlation.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain any four types of Bar Diagrams.

17. Discuss geometric mean and Harmonic mean and mention their uses.

18. Describe absolute measures of dispersion and relative measures of dispersion. Discuss their merits and demerits.

19. The first four central moments of a distribution are 0, 2.5, 0.7 and 8.75. Test the skewness and kurtosis of the distribution.

20. Explain the merits and demerits of rank correlation coefficient.

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